

12th Annual Emission Inventory Conference:

Emission Inventories- Applying New Technologies



Courses: April 28, 2003

Conference: April 29 - May 1, 2003

Holiday Inn on the Bay - San Diego, California

Sponsored by:



Emission Factor and Inventory Group
Emissions Monitoring and Analysis Division
Office of Air Quality Planning & Standards



Emission Inventory Improvement Program

Message from the General Conference Chair

The U.S. Environmental Protection Agency (U. S. EPA) invites you to the twelfth annual Emission Inventory Conference, "Emission Inventories - Applying New Technologies," to be held April 28 - May 1, 2003, in San Diego, California. The conference is being organized by EPA's Office of Air Quality Planning and Standards (OAQPS), and the Emission Inventory Improvement Program.

The conference begins with a full day of training courses on several aspects of emission inventory preparation and use (see Training Schedule). The second day will be kicked off with the keynote address by Patrick Garvey, U.S. Environmental Protection Agency, Director, Network Steering Board and Molly O'Neill, Environmental Council of the States (ECOS), Director, Network Steering Board, followed by a panel discussion, "Harnessing New Information Technologies to Integrate Emissions Data". Two and one half days of three concurrent technical sessions will be held, covering a variety of topics of interest to the participants. In addition to learning about the latest developments in the world of emissions data, this is a great opportunity to make new contacts (and renew previous ones) with other emission inventory professionals from federal/state/local and international regulatory agencies, tribal governments, industry, and academia.

Plan to come early, or stay late, to enjoy spring in San Diego, my hometown. You can attend a free concert in Balboa Park or take in the world famous San Diego Zoo. More information on local activities will be available at the conference. The conference will be located in downtown so you will have easy access to other activities in the San Diego area. To cover some of the basic costs of the conference, we will begin to charge a registration fee of \$50, but this still makes this event one of the best values around. We hope to see you at the Emission Inventory Conference in San Diego in April!

Philip A. Lorang
Office of Air Quality Planning & Standards
Emission Factor and Inventory Group



Schedule at a Glance

Time	Session	Time	Session
Mon, April 28		Wed, April 30	
8:00 - 5:00	Courses (See Training Schedule)	10:00 - 11:30	Session 4- Area Sources (Cont'd)
Tue, April 29			Session 5 - Point Sources (Cont'd)
8:00 - 10:00	Keynote Address		Session 6 - PM Fine (Cont'd)
10:00 - 10:30	Break	11:30 - 1:00	Lunch (On Your Own)
10:30 - 11:30	Panel Discussion - National Environmental Information Exchange Network	1:00 - 3:00	Session 7 - Greenhouse Gas
11:30 - 1:00	Lunch (On Your Own)		Session 8 - Mobile Sources
1:00 - 3:00	Session 1 - Air Toxics		Session 9 - EI Validation/Quality Assurance
	Session 2 - Fugitive Dust	3:00 - 3:30	Break
	Session 3 - Data Management	3:30 - 5:30	Session 7 - Greenhouse Gas (Cont'd)
3:00 - 3:30	Break		Session 8 - Mobile Sources (Cont'd)
3:30 - 5:30	Session 1 - Air Toxics (Cont'd)		Session 10 -EI Preparation for Modeling
	Session 2 - Fugitive Dust (Cont'd)	Thur, May 1	
	Session 3 - Data Management (Cont'd)	8:00 -10:00	Session 10 - Emission Inventory Preparation for Modeling (Cont'd)
6:00 - 8:00	Poster Session and Exhibitors Reception		Session 11 -Tribal Emission Inventories
Wed, April 30			Session 12 - Mexican Emission Inventories
8:00 - 9:30	Session 4 - Area Sources	10:00 - 10:30	Break
	Session 5 - Point Sources	10:30 - 12:00	Session 10 - Modeling (Cont'd)
	Session 6 - PM Fine		Session 13 - Regional Planning Org
9:30 - 10:00	Break		Session 12 - Mexican Emission Inventories (Cont'd)

Keynote Speaker

Patrick Garvey is a Special Assistant in the U. S. EPA's Office of Information Collection. In his current position, Mr. Garvey is the Staff Director to the Network Steering Board for the EPA members. In this role, Mr. Garvey is providing technical guidance and advice to the EPA Central Data Exchange project, the Facility Registry System integration development effort, and the Agency-wide Integrated Error Correction/Data Quality initiative. Pat has been recognized for numerous awards including the Federal 100 from Federal Computer Week. Projects that Pat has managed have also been chosen as a finalist in the E-Gov Best Practices program in January, 2001 and was recognized by Government Computer News in November 2000 for an Agency Excellence Award.

Molly O'Neill serves ECOS as the Executive Program Manager for the Network Steering Board. As Executive Program Manager, Ms. O'Neill is responsible for coordinating, supporting and leading the efforts of more than 35 state environmental department participants, and interfacing with EPA counterparts and other partners. Prior to joining ECOS, she spent 14 years working as an environmental management consultant. She started her career working as an environmental biologist performing ecological risk assessments and as a multi-media environmental regulatory analyst. The last eight years of her consulting experience was spent working closely with Executive Management of State environmental departments on organizational and performance assessments, performance measures, business process reengineering, and large-scale information management system implementation projects.

Training Schedule

April 28, 2003

Courses will be offered on a first come, first serve basis. Pre-registration is required. Registered participants will be notified of class locations upon check-in.

Morning Sessions

8:00 - 11:30 pm

EPA's Emission Estimation Tools

Instructors:

Dennis Beauregard, David Misenheimer, U.S. EPA

This course will introduce participants to the use of several of EPA's emission estimation tools and hands-on training for Air CHIEF Version 9.0; FIRE; TANKS; PM Calculator; Area Source Emissions Model; and Air DATA. **Seating is limited. Participants will be required to bring their own laptops.**

Basic Emission Inventory Preparation

Instructor:

Roy Huntley, U.S. EPA

This course presents an introduction and broad overview of Emission Inventories. Topics covered include basic emission inventory concepts, planning for an emission inventory, and emission inventory quality assurance. The course also includes an introduction to developing emission estimates for different source types (e.g., stationary point sources, stationary area sources, inroad mobile sources, and nonwrite mobile sources). This course is designed primarily for air quality agency staff that are new to the emission inventory field.

National Emission Inventory Input Format (NIF)

Instructor:

Lee Tooley, U.S. EPA

Most of the State/local and tribal agencies will use the NIF to transfer data electronically to EPA. A thorough review of NIF Ver 3.0 will be provided. Changes between NIF version 2.0 and NIF version 3.0 will be discussed. The course is intended for State/Local/Tribal users.

Emission Inventory Preparation for Modeling

Instructor:

Ron Ryan, U.S. EPA

Emissions modeling is an important and integral step in the translation of mass emissions inventories into useful inputs for air quality analysis and air dispersion model runs. This training session will provide a background into the development of emissions inventories suitable for emissions modeling and an outline of the steps and stages involved with emissions modeling activities. Key topics of discussion will be the completeness, temporal and spatial allocation, and speciation of mass emission inventories.

Afternoon Sessions

1:00 pm - 5:00 pm

Emission Inventory Quality Assurance

Instructor:

Rhonda Thompson, U.S. EPA

With the evolution of the National Emission Inventory (EI), U. S. EPA has developed a new quality assurance tool to identify potential errors in the inventory. Learn how to use this new software which automates checks for database format and content using the EI Input format. It reads the submittal form accompanying the database and compares the database pollutant, geographic, SCC, and temporal coverage with the coverage specified. Other database format checks include completeness of mandatory fields and relational database referential integrity. It also performs database content checks on computational fields, acceptable codes, and numeric value ranges.

PM Fine Emission Inventory Preparation

Instructor:

Tom Pace, U.S. EPA

This course will focus on the principal stationary source categories emitting PM fine particles. For each category, we will discuss how the National Emission Inventory (EI) develops its emission estimates, suggest activities States can do to improve upon the EI estimate and locate on-line resources to facilitate State inventory improvement activities. A case study will provide examples.

Inventory Preparation for Toxics

Instructor:

Anne Pope, U.S. EPA

This course discusses specific toxics issues to consider when developing toxics air emission inventories. It is designed as a segment to be used as a follow-on to the basic emission inventory course. It does not cover material on basic emission inventory development. Specific topics include how to report hazardous air pollutant compound groups, source categorization.

Tuesday, April 29, 2003

Session 1 Air Toxics

Chairs: Pam Tsai, U.S. EPA, Region IX
Leonardo Ceron, U.S. EPA, Region IV

- 1:00 pm “Comparison of HAP Emission Estimates Developed Using Top-Down and Bottom-Up Techniques for New Haven, Connecticut,” R. F. McConnell, and M. B. Smuts, US EPA, Region I.
- 1:30 pm “Development and Evaluation of an Air Toxics Emission Inventory in Jacksonville, Florida,” L. Tilley, City of Jacksonville, Florida.
- 2:00 pm “Point Source Emissions Inventory Development and Evaluation for the Wilmington Air Quality Study,” T. Sax, California Air Resources Board.
- 2:30 pm “Mapping and Analysis Tools for Emissions on the Internet: Community Health Air Pollution Information System (CHAPIS) for Toxics and Criteria Pollutants,” M. B. Schwehr, California Air Resources Board. **(Also in Poster)**
- 3:00 pm **BREAK**
- 3:30 pm “Dioxin Emission Inventories in Central and Eastern European Countries,” P. Dilara, and B. Paradi, Joint Research Centre of the European Commission, ITALY.
- 4:00 pm “A Comparison of Ambient Hazardous Air Pollutant Concentrations and Emission Sources in El Paso, Texas and Camden, New Jersey,” R. Oommen, D. Wilson, R. Billings, G. Brooks, H. Perez, and D. Dayton, J. Swift, Eastern Research Group.
- 4:30 pm “A Comparison of Local and National Air Toxics Emissions Estimates: Regional Importance of Selected Source Categories,” J. T. Kelly, Olympic Regional Clean Air Agency (ORCA).
- 5:00 pm “Emissions Characterization for a Community-Scale Risk Assessment,” S. Thompson, and J. York, US EPA, Region VI. **(Also in Poster)**

Session 2 Fugitive Dust

Chairs: Bill Kuykendal, U.S. EPA
Duane Ono, Great Basin Unified Air
Pollution Control District

- 1:00 pm “Reconciling Fugitive Dust Emission Inventories with Ambient Measurements,” R. Countess, Countess Environmental.
- 1:30 pm “Reconciling Fugitive Dust Emissions with Ambient Measurements: Along the Unpaved Road,” V. Etyemezian, J. Gillies, H. Kuhns, D. Nikolic, Desert Research Institute; J. Vernath, University of Utah.
- 2:00 pm “Evaluation of Fugitive Deposition Dust Rates Using Lidar,” D. Fitz, D. Pankratz, University of California, Riverside; R. Philbrick, G. Li, The Pennsylvania State University.
- 2:30 pm “Vehicle-Based Road Dust Emissions Measurements,” H. Kuhns, V. Etyemezian, J. Gillies, M. Green, Desert Research Institute; M. Pitchford, National Oceanic and Atmospheric Administration; J. Watson, Desert Research Institute.
- 3:00 pm **BREAK**
- 3:30 pm “Quantifying Particulate Matter Emissions from Wind Blown Dust Using Real-Time Sand Flux Measurements,” D. Ono, S. Weaver, Great Basin Unified Air Pollution Control District.
- 4:00 pm “Determining Fugitive Dust Emissions from Wind Erosion,” G. Mansell, ENVIRON International Corporation; P. G. Fields, Eastern Research Group; J. Gillies, Desert Research Institute; W. Barnard, MACTEC Engineering & Consulting; G. Tonnesen, M. Omary, University of California Riverside; M. Uhl, Clark County, Nevada.
- 4:30 pm “Computing Agricultural PM10 Fugitive Dust Emissions Using Process Specific Emission Rates and GIS,” H. Yu, P. Gaffney, California Air Resources Board. **(Also in Poster)**
- 5:00 pm “Emission Inventory of Fugitive Dust Due to Petroleum Industry Related Activities in Kuwait,” U. Ritwik, Kuwait National Petroleum Company, KUWAIT.

Tuesday, April 29, 2003

Session 3 Data Management

Chair: Lee Tooty, U. S. EPA

- 1:00 pm "An Overview of EPA's System of Registries," M. Pendleton, U. S. EPA.
- 1:30 pm "The Challenge of Meeting New EPA Data Standards and Information Quality Guidelines in the Development of the 2002 National Emission Inventory Point Source Data for Hazardous Air Pollutants." A. Pope, U.S. EPA; S. Finn, D. Wilson, Eastern Research Group.
- 2:00 pm "Addressing a Bottleneck in Data Integration Using Automated Learning Techniques," E. Hovy, J. Ambite, A. Philpot, University of Southern California.
- 2:30 pm "Web Inventory Implementations in Pennsylvania-Reducing Burden, Increasing Quality, and Changing Business," B. E. Lane, Ciber, Inc.; C. Eastman, Pennsylvania Department of Environmental Protection.
- 3:00 pm **BREAK**
- 3:30 pm "EPA's National Emission Inventory Data System Functions for Streamlining Data," S. Boone, D. McKenzie, E. H. Pechan; R. Thompson, U.S. EPA. **(Also in Poster)**
- 4:00 pm MoEIS: Missouri's Implementation of EIIP Phase Data Model for Collecting Annual Emission Inventories," R. Raymond, Missouri Air Pollution Control Program.
- 4:30 pm "Applications of an IT Tool, OMS, on Real-Time Emission Inventory," K.Li, H. Heilein, T. Shah, L. Zhou, H.H. Lou, Lamar University; P. Nix, PDC.



Star of India - The world's oldest active sailing ship can be seen next to the Holiday Inn on the Bay.

Tuesday, April 29, 2003

Poster Session

6:00 pm - 8:00pm

“GHG and NH₃ Emission Inventories for Agroecosystems: Role of GIS and Process-based Models in Developing Site Specific Emission Factors, Assessing Variability, and Providing Uncertainty Estimates,” W. Salas, Applied Geosolutions, LLC; C. Li, University of New Hampshire.

“1990 - 2000 Emission Trends and the Influence by Economics Crisis in Korea,” Y. Jang, S. Choi, K. Kim, J. Hong, Suwon University, KOREA.

“A Comparison of Emission Inventory Processing with EMS-2001 and SMOKE,” E. E. Zalewsky, C. Hogrefe, W. Hao, J. Y. Ku, G. Sistla, New York State Department of Environmental Conservation.

“Advances in Emissions Modeling of Airborne Substances,” T. Pierce, W. Benjey, J. Ching, D. Gillete, A. Gilliland, US EPA; S. He, University Center for Atmospheric Research; G. Pouliot, US EPA.

“Emissions Characterization for a Community-Scale Risk Assessment,” S. Thompson, J. York, US EPA.

“Mapping and Analysis Tools for Emissions on the Internet: Community Health Air Pollution Information System (CHAPIS) for Toxics and Criteria Pollutants,” M. Beth Schwehr, California Air Resources Board.

“Air Toxics Profiles in Pinellas County, Florida,” P. -S. Liu, D. Price, Pinellas County Air Quality Division.

“The 1999 Great Lakes Regional Air Toxic Emissions Inventory: Point and Area Sources and Assessment of Mercury Emissions,” O. Cabrera-Rivera, WI Dept of Natural Res; D. Asselmeier, IL EPA J. Bates, IN Dept of Env Mgt; G. Baker, MI Dept of Env Quality; C. Y. Wu, MN Pollution Control Agency; R. Bielawa, S. Alam, NY Dept of Env Conservation; T. Velalis, OH EPA; R. Altenburg, PA Dept of Env Protection; P. Wong, J. Georgakopoulos, Ontario Ministry of Environment, CANADA; K. Yam, Great Lakes Commission.

“Computing Agricultural PM₁₀ Fugitive Dust Emissions Using Process Specific Emission Rates and GIS,” H. Yu, P. Gaffney, California Air Resources Board.

“Determination of Emissions from the Mineral Extracting Industry,” R. Wales, A. DeSalvio, Mojave Desert Air Quality Management District.

“An Inventory of Nitrous Oxide Emissions from US Agricultural: A Comparison of IPCC and DNDC Process Model Results,” C. Li, University of New Hampshire; W. Salas, Applied Geosolutions, LLC; S. Boles, University of New Hampshire.

“PM₁₀ Emission Factors for Harvest and Tillage of Row Crops,” T. Cassel, K. Trzepla-Nabaglo, R. Flocchini, University of California, Davis.

“Emission Inventories in Indian Country, Past, Present and Future,” S. Kelly, Institute for Tribal Environmental Professionals at Northern Arizona University; B. Ramirez, Salt River Pima-Maricopa Indian Community; O. Barber, Fort McDowell Yavapai Nation.

“Estimation of VOCs Emission of TFT-LCD Manufacturing Process in Taiwan,” C. C. Tsao, S. -K. Hsu, K. -P. Schen, Industrial Technology Research Institute, TAIWAN

“Improvements of the Flares Emission Factors in Spain,” J. Martin, EHS Repsol-YPF; J. Lumbreras, M. E. Rodriguez, Universidad Politécnica de Madrid, SPAIN.

“Estimation of VOCs and Inorganic Acid Emission Factors for Semiconductor Manufacturing Processes,” M. H. Chen, H. M. Chein, Industrial Technology Research Institute, TAIWAN.

“Prototyping the Texas Emissions Inventory Preparation System for the SMOKE System,” S. Kim, D. W. Byun, University of Houston.

“PM Fine Database and Associated Visualization Tool,” S. Boone, F. Divita, Jr, B. Eisemann, E. H. Pechan and Associates, Inc; V. Rao, US EPA.

“The Reactivity of Gasoline Vapor Variations by Year,” S. P. Anderson, C. Rubick, P. Ogbeide, Texas Commission on Environmental Quality.

Poster Session (Continued)

"Emissions Processing for an Air Quality Forecasting Model," G. Pouliot, T. Pierce, J. Godowitch, National Oceanic and Atmospheric Administration.

"Point Source Session Rule Effectiveness," B. Betterton, South Carolina Department of Health & Environmental Control.

"Environmental Resource Optimization, Theory and Practice," R. Emigh, C. Prostko-Bell, Ennovation, Inc.

"A National Methodology and Emission Inventory for Residential Fuel Combustion," B. H. Haneke, Pacific Environmental Services, Inc.

"Instrumentation for Measurement of Agricultural Tractor Exhaust Gas Emissions During Normal Field Operations," N. McLaughlin, Eastern Cereal and Oilseed Research Centre; M. Layer, Environment Canada. CANADA.

"NONROAD-AT: A Database Tool for Managing Off-Road Emissions Scenarios Created with EPA's NONROAD Model," T. Stoeckenius, C. Lindhjem, ENVIRON Corporation.

"National Greenhouse Gas Inventories: Application of the Principles of Transparency, Consistency, Comparability, Completeness and Accuracy," S. Todorova, R. Lichte, A. Olsson, C. Breidenich, UNFCCC Secretariat.

"Using the Geographic Information System Tool for Emission Inventory Quality Assurance and Visualization," A. Eyth, Carolina Environmental Program; P. Pai, K. Hanisak, MCNC Environmental Modeling Center.

"An Estimate of the Emissions of Gas-Phase Toxic Compounds from Heavy-Duty Diesel Powered Vehicles," X. Zhu, K. Johnson, D. R. Cocker III, W. Miller, J. M. Norbeck, University of California Riverside.

"Updates and Improvements to the SPECIATE Data and Program," W. Hodan, Pacific Environmental Services.

"Historical Comparison of Hazardous Air Pollutant Emissions from Aircraft, Commercial Marine Vessel, Locomotive and Other Nonroad Emission Sources Included in the National Emission Inventory," R. Billings, R. Mongero, R. Chang, Eastern Research Group; L. Driver, C. Scarbro, R. Cook, US EPA.

"Investigation of the Formation of NH_3 Emissions as a Function of Vehicle Load and Operating Conditions," T. Huai, T. D. Durbin, J. W. Miller, J. T. Pisano, C. G. Sauer, S. H. Rhee, J. M. Norbeck, University of California Riverside.

"Global Gridded Emission Inventories of B-hexachlorocyclohexane," Y. F. Li, Environment Canada; M. T. Scholtz, B. J. van Heyst, Canadian ORTECH Environmental.

"Preliminary Results of the Colorado Diesel Emissions Study," Lisa Silva, Colorado Department of Public Health and Environment.

"Factors Influencing the Contributions of Diesel and Gasoline Exhaust to PM-2.5 Emission Inventories," Joseph H. Somers, Office of Transportation and Air Quality, US EPA.

"Correlating Particulate Matter Mobile Source Emissions to Ambient Air Quality," Kevin N. Black, Federal Highway Administration.

"Development of AP-42 Emission Factors for Range Operations," Richard Rehm, Pacific Environmental Services, Inc ; Tamera Rush, Booz, Allen & Hamilton, Inc.

"Ammonia and ROG Measurements at a Central California Dairy," Charles Krauter, Matt Beene, and Dave Goorahoo, California State University; Teresa Cassel, University of California-Davis.

"Link-Based Calculation of Motor Vehicle Air Toxin Emissions Using MOBILE 6.2," B. Stein, D. Walker, Metro (Travel Forecasting Section); R. Cook, US EPA.

"The Quality System Assurance (QSA) in the German Emission Inventory using the MESAP-CalQlator." U. Schellmann, C. Schlenzig, Seven2one Information Systems Inc.; U. Doring, Federal Environmental Agency (UBA), GERMANY.

Wednesday, April 30, 2003

Session 4 Area Sources

Chairs: Roy Huntley, U. S. EPA
Rob Sliwinski, New York State DEC

- 8:00 am "Developing a Consistent Methodology to Calculate VOC and HAP Evaporative Emissions for Stage I and Stage II Operations at Gasoline Service Stations for the 1999 NEI (Draft V2.0)," G. T. Johnson, Pacific Environmental Services, Inc. (a MACTEC Company).
- 8:30 am "Development of an Improved Product Based Approach for the Calculation of NMVOC Emissions from Solvent Use and Uncertainty Analysis," J. Theloke, and R. Friedrich, University of Stuttgart, GERMANY..
- 9:00 am "Observations of Weekday-Weekend Activity Patterns for Area Sources in the Los Angeles Area," D. L. Coe, L. R. Chinkin, C. A. Gorin, and P. A. Ryan, Sonoma Technology, Inc.
- 9:30 am **BREAK**
- 10:00 am "Use of Remotely-Sensed Data in the Development and Improvement of Emission Inventories," S. M. Roe, and J. Hearne, E. H. Pechan & Associates, Inc.; T. Summers, R. Sedlacek and D. Jenkins, Arizona Department of Environmental Quality.
- 10:30 am "TCE: A Calculation Tool Optimized for the Development and Management of Non-Point Emission Inventories," R. Altenburg, Pennsylvania Department of Environmental Quality; R. Emigh, Windsor Technologies, Inc.
- 11:00 am "Emission Factors for Reactive Chlorine Precursors for Swimming Pools and Cooling Towers," S. P. Anderson, Texas Commission on Environmental Quality.

Session 5 Point Sources

Chairs: Anne Pope, U.S. EPA
Bob Betterton, So Carolina DHEC

- 8:00 am "PM Augmentation Procedures for the 1999 Point and Area Source National Emission Inventory," R. Strait, D. McKenzie, E. H. Pechan & Associates, Inc.; R. Huntley, US EPA.
- 8:30 am ""Benefits, Trials and Tribulations of Building an Emission Inventory Point Source Inventory Software Integrated with Permits and Compliance Needs," J. H. Southerland, A. Hall, H. Hawkins, S. Macieira, T. Manning, S. Moser, T. Sabetti, C. Walker, J. Sheppard, North Carolina Division of Air Quality.
- 9:00 am "An Electronic Data Entry System for Point Sources," S. Ehrhardt, St. Louis County Air Pollution Control.
- 9:30 am **BREAK**
- 10:00 am "i-Steps Development for State and Local Agencies," L. Williams, Pacific Environmental Services.
- 10:30 am "Improved Point Source Inventory - Demonstration of the New Reporting Software for Consolidated Reporting of Criteria and Toxic Emissions," T. Chico, Z. Pirveysian, South Coast Air Quality Management District; N. Meskal, Ecotek, MST Solutions, Inc.
- 11:00 am "Determination of Emissions from the Mineral Extracting Industry," R. Wales, A. DeSalvio, Mojave Desert Air Quality Management District.

Wednesday, April 30, 2003

Session 6 Particles and Precursors

Chairs: Tom Pace, U.S. EPA

Patrick Gaffney, California Air Resource Board

- 8:00 am "Emission Scenarios for Particulate Matter Research and Policy Assessment in Finland," M. Johansson, N. Karvosenoja, P. Porvari, Finnish Environment Institute; K. Kupiainen, Nordic Envicon Oy. FINLAND.
- 8:30 am "A GIS Based Emissions Estimation System for Wildfire and Prescribed Burning," N. Clinton, J. Scarborough, Y. Tian, P. Gong, University of California, Berkeley.
- 9:00 am "Simultaneous Measurements of Military Aircraft Engine PM Emissions with the EPA Method 5 and the SMPS Method," X. Li-Jones, Anteon Corporation; E. L. Douglas, Naval Air Dept.
- 9:30 am **BREAK**
- 10:00 am "PM Fine Database and Associated Visualization Tool," S. Boone, F. Divita, Jr, B. Eisemann, E. H. Pechan and Associates, Inc; V. Rao, US EPA
- 10:30 am "A Geographically and Seasonally Resolved Ammonia Emission Inventory for Dairy Farms," R. W. Pinder, N. J. Anderson, R. Strader, C. I. Davidson, P. J. Adams, Carnegie Mellon University.
- 11:00 am "Ammonia Flux Profiles for Various Soil and Vegetation Communities in California," C. Krauter, D. Goorahoo, California State University; C. Potter, S. Klooster, NASA-Ames Research Center.

Session 7 Greenhouse Gases

Chairs: Wiley Barbour, Environmental Resources Trust, Inc

Jill Gravender, California Climate Action Registry

- 1:00 pm "State-of-the-Art Greenhouse Gas Emission Inventory Guidance and Tools," A. Choate, P. Groth, R. Freed, M. Stanberry, ICF Consulting; A. Denny, US EPA.
- 1:30 pm "Advanced Methods for Estimating Uncertainty in National Greenhouse Gas Emission Inventories - the Case of Finland," S. Monni, S. Syri, I. Savolainen, VTT Technical Research Centre of FINLAND.
- 2:00 pm "Consistency in Greenhouse Gas Emissions Estimation for Oil and Gas Industry Operations - A Non-Trivial Pursuit," K. Ritter, American Petroleum Institute; S. Nordrum, ChevronTexaco; T. Shires, URS Corporation.
- 2:30 pm "Modeling Emissions of High Global Warming Potential Gases," D. Godwin, US EPA; M. M. VanPelt, ICF Consulting.
- 3:00 pm **BREAK**
- 3:30 pm "Development of an Emissions Model to Estimate Methane from Enteric Fermentation in Cattle," J. Mangino, US EPA.
- 4:00 pm "Methane Emissions from Wastewater Treatment," E. Scheehle, US EPA.
- 4:30 pm "An Assessment of the GHG Emissions from the Transportation Sector," W. Cowart, ICF Consulting; V. Pesinova, S. Saile, US EPA.
- 5:00 pm "Greenhouse Gas Inventory Information System," T. Temertekov, J. Grabert, R. Ishmukhametov, V. Lalieu, UNFCCC Secretariat.



Wednesday, April 30, 2003

Session 8 Mobile Sources

Chairs: Laurel Driver, U.S. EPA
Joe Pedelty, U.S. EPA

- 1:00 pm “Development of a 1999 National Air Toxics Inventory for Highway Mobile Sources Using MOBILE6.2,” R. Cook, L. Driver, US EPA; m. Mullen, E. H. Pechan and Associates Inc.; R. Baker, B. Limsakul, ERG, Inc.
- 1:30 pm “A Consistent Approach to Modeling Highway Mobile Source Activity,” H. Michael, D. Brzezinski, S. Kimbrough, US EPA.
- 2:00 pm “MOBILE6 Validation Study Results,” A. K. Pollack, C. Tran, T. Stoeckenius, C. Lindhjem, ENVIRON Corporation.
- 2:30 pm “Design and Implementation Plan for MOVES, EPA’s New Generation Mobile Source Emission Model,” J. Koupal, M. Cumberworth, H. Michaels, M. Beardsley, D. Brzezinski, C. Hart, C. Baily, R. Giannelli, US EPA.
- 3:00 pm **BREAK**
- 3:30 pm “Evaluation and Recommendation of a Modal Method for Modeling Vehicle Emissions,” H. C. Frey, Al Unal, J. Chen, North Carolina State University.
- 4:00 pm “Comparison of Nonroad Hazardous Air Pollutant Emissions Included in the National Emission Inventory,” R. Chang, R. Billings, Eastern Research Group; L. Driver, C. Carbro, R. Cook, US EPA.
- 4:30 pm “EPA’s Newest Draft Nonroad Emission Inventory Model,” C. Harvey, P. Carey, J. Warila, US EPA.
- 5:00 pm “Resolution of Diesel Fuel Consumption Discrepancy (and Emissions) in EPA’s Nonroad Emission Inventory Model,” R. Wilcox, J. Warila, M. Manners, US EPA.

**Session 9 Emission Inventory
Validation/Quality Assurance**

Chairs: Rhonda Thompson, U.S. EPA

- 1:00 pm “Developing a QA/QC Program for a Local Agency Annual Emission Inventory,” L. Artates, Nashville and Davidson County, Tennessee.
- 1:30 pm “Does Your Emission Inventory Make Sense? Checking Your Inventory for Errors,” R. Huntley, R. Thompson, US EPA.
- 2:00 pm “Quality Assurance and Estimation of Emissions Activity Data in the National Emissions Inventory,” A. Bollman, H. Chelf, E. H. Pechan & Associates, Inc., Leif Hockstad, US EPA.
- 2:30 pm “The Quality System Assurance (QSA) in the German Emission Inventory using the MESAP-CalQlator.” U. Schellmann, C. Schlenzig, Seven2one Information Systems Inc.; U. Doring, Federal Environmental Agency (UBA), GERMANY. **(Also in Poster Session)**
- 3:00 pm **BREAK**



Holiday Inn on the Bay

Wednesday, April 30, 2003

Session 10 Emission Inventory Preparation for Modeling

Chairs: Ron Ryan, U.S. EPA
Mike Jay, U.S. EPA, Region VII

- 3:30 pm "Design, Application, and Recommendations for Including Inventory Uncertainties in Emission Inventory Preparation for Modeling," M. Houyoux, Carolina Environmental Program; C. Frey, D. Loughlin, North Carolina State University; A. Holland, MCNC; G. Cano, Formerly of MCNC.
- 4:00 pm "SAMAA: System for Air Modeling and Analysis," C. Gueguen, ACRI-ST, FRANCE; E. Zarate, Universidad de los Andes; A. Mangin, ACRI-ST; A. Clapier, Ecole Polytechnique Fédérale de Lausanne (EPFL), SWITZERLAND; O. Sanchez, ACRI-ST.
- 4:30 pm "An Alternate Approach to VOC Speciation Reporting," M. D. Moran, D. Niemi, P. A. Makr, T. Mah, Environment Canada, CANADA.
- 5:00 pm "The Use of SMOKE to Process Multipollutant Inventories - Integration of Hazardous Air Pollutant Emissions with Volatile Organic Compound Emissions," M. Strum, G. Gipson, US EPA; W. Benjey, National Oceanic and Atmospheric Administration, R. Cook, US EPA; M. Houyoux, Carolina Environmental Program; C. Seppanen, MCNC Environmental Modeling Center.

Thursday, May 1, 2003

Session 10 Emission Inventory Preparation for Modeling

Chairs: Ron Ryan, U. S. EPA
Mike Jay, U.S. EPA, Region VII

- 8:00 am "Use of the NEI 1999 Inventory for Regional and Continental Scale Chemical Transport Modeling of Particulate and Regional Haze," M. Jannsen, LADCO.
- 8:30 am "Preparation of Emission Data for Modeling with CMAQ from Spanish Emission Inventories and Emission Projections," R. Borge, J. Lumbreras, M. E. Rodriguez, Universidad Politécnica de Madrid (UPM); J. G. Abascal. SPAIN.
- 9:00 am "Modeling Area, Line and Point Source for ISC Model: Methodology, Computer Interface and Case Study," C. Trozzi, Techne srl, ITALY.
- 9:30 am **BREAK**
- 10:00 am "Emission Inventory Preparation for Air Quality Modeling in the Pacific Northwest," J. W. Boulton, RWDI West, Inc.; C. diCenzo, Environment Canada; M. Gauthier, D. Crawley, M. Lepage, RWDI West, Inc. CANADA.
- 10:30 am "Creating an Emission Inventory for Modeling Global Climate Change Effects on Regional Air Quality," W. G. Benjey, National Oceanic and Atmospheric Administration; A. E. Grambsch, E. L. Wright, C. Gage, C. D. Geron, US EPA; A. Gilliland, E. Cooter, National Oceanic and Atmospheric Administration; D. Winner, US EPA.
- 11:00 am "The MIMS Spatial Allocator: A Tool for Generating Emission Surrogates Without a GIS," A. Eyth, Carolina Environmental Program.
- 11:30 am "Development of a Criteria Pollutant Emissions Inventory for Sources in the Gulf of Mexico," D. Wilson, R. Billings, J. Fanjoy, Eastern Research Group, Inc.

Thursday, May 1, 2003

Session 11 New Developments in Emission Inventories for Mexico

Chairs: Paula Fields, Eastern Research Group
Adrián Fernández Bremauntz, Instituto Nacional de Ecología

- 8:00 am "Mexico National Emissions Inventory: A New Tool for Decision Making," A. F. Bremauntz A. Garcia, V. G. Bravo, Instituto Nacional de Ecología, MEXICO.
- 8:30 am "Developing a National Emissions Inventory for Mexico Phase II: Northern States Emissions Inventory," P. Fields, M. Wolf, D. Wilson, R. Baker, Eastern Research Group, Inc., R. Halvey, Western Governors' Association; W. Kuykendal, US EPA..
- 9:00 am "Developing a National Emissions Inventory for Mexico On-Road Mobile Source Emissions Inventory," M..Wolf, P. Fields, Eastern Research Group, Inc., S. González-Ayala, International Communities Research Center.
- 9:30 am **BREAK**
- 10:00 am "The Emission Inventories and SMOKE Modeling Efforts Used to Support the BRAVO Study," H.. Kuhns, Desert Research Institute; J. M. Vukovich, Carolina Environmental Program.
- 10:30 am "Dioxins, Furans and Hexacholobencene Emissions Inventory for Mexico," A. Garcia-Gutierrez, National Institute of Ecology, MEXICO.
- 11:00 am "Preliminary Atmospheric Emissions Inventory of Mercury in Mexico," G. Acosta-Ruiz, Acosta y Asociados, MEXICO; B. Powers, Powers Engineering.

Session 12 Tribal Emission Inventories

Chairs: Sara Kelly, ITEP
Bob Ramirez, Salt River Pima-Maricopa Indian Community

- 8:00 am "Creating a Tribal Source and Emissions Inventory Out of Thin Air: A Comprehensive Approach Using Primary and Secondary Data," T. Richards, Bishop Paiute Tribe.
- 8:30 am "First Native Alaskan Baseline Emissions Inventory: The 125-year-old Native Village of Noatak, Alaska," D. C. Jones, Robinson Rancheria of Pomo Indians; F. Chin, Maniilaq Association.
- 9:00 am "GIS-Integrated Emissions Inventory Software Solution," J. L. Thé, M. Johnson, S. Koo, M. Hilverda, Cris Thé, Lakes Environmental Software, Inc, CANADA.
- 9:30 am **BREAK**

Session 13 Regional Planning Organizations

Chair: Rosalina Rodriguez, US EPA
Mark Janssen, LADCO

- 10:00 am "Emissions Characterization Near Western Class I Visibility Areas," A. K. Pollock, G. Mansell, ENVIRON Corporation.
- 10:30 am "VISTAS 2002 Emission Inventory Development," S. Holman, L. Boothe, North Carolina Department of Environmental and Natural Resources; J. Hornback, VISTAS/SESARM/METRO4; P. Brewer, VISTAS; M. Mullen, K. Thesing, E. H. Pechan and Associates, Inc.; E. Sabo, B. Barnard, MACTEC Engineering and Consulting, Inc.
- 11:00 am "Case Study: Gathering Open Burning Activity Information and the Limitations of EIIP Methodologies," A. Baumann, Mid-Atlantic Regional Air Management Association; S. M. Roe, K. Thesing, E. H. Pechan and Associates, Inc.
- 11:30 am "Visualization of 1999 National Emission Inventory as a Prelude to 2002 National Emission Inventory for MANE-VU Regional Haze Modeling Efforts," S. Kayin, S. Wierman, Mid-Atlantic Regional Air Management Association.



Registration

To register for the conference and/or courses, please complete the registration form on the last page of this program, and mail it to:

Sally Dombrowski
U. S. Environmental Protection Agency
OAQPS-EFIG (D205-01)
Research Triangle Park, NC 27711

or you may fax your registration to: (919) 541-0684. On-line registration is also available at <http://www.epa.gov/ttn/chief/conferences.html>. There is a small registration fee of \$50, which is **payable upon check-in** at the conference in the form of cash or check (payable to the *Holiday Inn on the Bay*). DO NOT MAIL YOUR REGISTRATION CHECK TO THE HOTEL. Space is on a first come-first served basis, via registration. Registrations should be received no later than March 29, 2003. For additional information regarding registration, please contact Sally Dombrowski at (919) 541-3269.

Exhibition Space The exhibitor registration form is available at www.ecotek.com. For information on exhibitor space, please contact Erna Milos of ECOTEK at (714) 596-8836 Ext. 300 or by email at emilos@ecotek.com.

Logistics

Hotel reservations may be made by calling the Holiday Inn on the Bay (619) 232-3861. A block of rooms has been reserved at the prevailing government per diem (currently \$99.00 + tax). The block is listed under "EPA's Emission Inventory Conference, Rate Code: ENV." This block will be open until April 6, 2003. The hotel has free shuttle service from the airport (1.5 miles) to the hotel.

Come early or stay late, there is plenty to do in San Diego. Below is a small sampling:

San Diego Zoo: World renowned, the zoo is one of the area's most famous visitor attractions.

Sea World: Located on Mission Bay, Sea World features 6 major shows and dozens of fascinating exhibits containing marine life from around the globe, including the largest shark and penguin exhibit and its star attraction, Shamu, a performing three-ton killer whale.

Tijuana, Mexico - One of the easiest, quickest, and least expensive ways to take a trip to a foreign country is to visit Tijuana. Located directly across the border from San Diego, Tijuana is the biggest city in Baja, California, with nearly 2 million residents. There are plenty of restaurants featuring all cuisines in addition to authentic Mexican foods, modern discos with many live bands and exciting night shows; shopping holds special appeal for most visitors with dozens of shops. Other attractions include Jai Alai and Thoroughbred and Greyhound racing at the Agua Caliente Race Track.

Gaslamp Quarter - The sights and sounds of a bustling California waterfront town of the 1890's awaits visitors to San Diego's newest national historic district. There are many bars, clubs and nightlife entertainment in the Gaslamp Quarter, along with the Horton Plaza Mall to do some shopping, Hard Rock Café, the Spaghetti Factory and many more.

Old Town San Diego - Considered the "birthplace" of California, Old Town San Diego is home to 37 of San Diego's finest restaurants including the best in Mexican and International cuisine. Many restaurants have flower filled courtyards and gardens, sun drenched patios and festive live music.

Balboa Park - Located in the very heart of San Diego. Every day the 100-bell carillon chimes each quarter hour from the California tower, a city landmark, and prime example of the park's Spanish-Moorish architecture. Within its 1,074 acres are museums, art galleries, theaters, sports facilities, and the San Diego Zoo.

Registration
Emission Inventories - Applying New Technologies

Please print or type

First Name (MI)

Last Name

Title

Affiliation

Address

City

State/Province

Postal Code

Country

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Phone Number

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Fax Number

E-Mail

Conference Registration: A **\$50.00** registration fee in the form of cash or check (payable to the *Holiday Inn on the Bay*), will be collected upon check-in at the conference. **DO NOT MAIL THE CHECK TO THE HOTEL.** EPA employees and session chairs are exempt from the registration fee.

Pre-registration is required. Indicate days of attendance.

_____ Tuesday

_____ Wednesday

_____ Thursday

Course Registration: Select one morning and one afternoon course, if desired. **Pre-registration is required.** All courses are to be held on Monday, April 29th.

Morning 8:00 - 11:30 pm

Afternoon 1:00 - 5:00 pm

FULL Emission Estimation Tools

_____ Emission Inventory Quality Assurance

_____ Basic Emission Inventory Preparation

_____ PM Fine Emission Inventory Preparation

_____ National Emission Inventory (NEI)
Input Format (NIF)

_____ Inventory Preparation for Toxics

_____ Emission Inventory Preparation for Modeling